

May 19, 2011

Ex. 4 - CBI

Quantum Analytical & Environmental
824 Enterprise Street
Dickson City, PA 18519

RE: Project: Ethylene Glycol
Pace Project No.: 3046709

Dear **Ex. 4 - CBI**

Enclosed are the analytical results for sample(s) received by the laboratory on May 14, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Timothy Reed for
Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: **Ex. 4 - CBI** Quantum A/E Labs Inc.

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Ethylene Glycol
Pace Project No.: 3046709

Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268
Illinois/NELAC Certification #: 100418
Indiana Certification #: C-49-06
Kansas Certification #: E-10247
Kentucky Certification #: 0042

Louisiana Certification #: 04076
Ohio VAP: CL0065
Pennsylvania: 68-00791
West Virginia Certification #: 330

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SAMPLE ANALYTE COUNT

Project: Ethylene Glycol
Pace Project No.: 3046709

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
3046709001	018-051211	EPA 8015 Modified	FRW	1	PASI-I
3046709002	026-051211	EPA 8015 Modified	FRW	1	PASI-I
3046709003	034-051211	EPA 8015 Modified	FRW	1	PASI-I

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ANALYTICAL RESULTS

Project: Ethylene Glycol
Pace Project No.: 3046709

Sample: 018-051211		Lab ID: 3046709001	Collected: 05/12/11 12:20	Received: 05/14/11 10:03	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Alcohols		Analytical Method: EPA 8015 Modified						
Ethylene glycol	ND	mg/L	10.0	1		05/17/11 13:35	107-21-1	
Sample: 026-051211		Lab ID: 3046709002	Collected: 05/12/11 11:50	Received: 05/14/11 10:03	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Alcohols		Analytical Method: EPA 8015 Modified						
Ethylene glycol	14.2	mg/L	10.0	1		05/17/11 13:39	107-21-1	
Sample: 034-051211		Lab ID: 3046709003	Collected: 05/12/11 11:22	Received: 05/14/11 10:03	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Alcohols		Analytical Method: EPA 8015 Modified						
Ethylene glycol	ND	mg/L	10.0	1		05/17/11 13:44	107-21-1	

QUALITY CONTROL DATA

Project: Ethylene Glycol
Pace Project No.: 3046709

QC Batch: WET/7712 Analysis Method: EPA 8015 Modified
QC Batch Method: EPA 8015 Modified Analysis Description: EPA 8015 Modified
Associated Lab Samples: 3046709001, 3046709002, 3046709003

METHOD BLANK: 572339 Matrix: Water
Associated Lab Samples: 3046709001, 3046709002, 3046709003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylene glycol	mg/L	ND	10.0	05/17/11 12:15	

LABORATORY CONTROL SAMPLE: 572340

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ethylene glycol	mg/L	276	299	108	78-118	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 572341 572342

Parameter	Units	3046709001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Ethylene glycol	mg/L	ND	276	276	286	290	102	103	51-135	1	

QUALIFIERS

Project: Ethylene Glycol
Pace Project No.: 3046709

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-I Pace Analytical Services - Indianapolis

WORKORDER QUALIFIERS

WO: 3046709

[1] This project was revised on 5/19/11 in order to correct the results for Ethylene Glycol.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Ethylene Glycol
Pace Project No.: 3046709

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3046709001	018-051211	EPA 8015 Modified	WET/7712		
3046709002	026-051211	EPA 8015 Modified	WET/7712		
3046709003	034-051211	EPA 8015 Modified	WET/7712		